TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
SHL.0301US

Re Application Of: **Timothy T. Achee, Jr. et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/709,755	03-26-2004	Giovanna M. Collins	35204	3672	3754

Invention: **Flow Control in Conduits from Multiple Zones of a Well**

COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on **May 12, 2006.**

The fee for filing this Appeal Brief is: **$500.00**

☒ A check in the amount of the fee is enclosed.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **20-1504** (SHL.0301US)

☐ Payment by credit card. Form PTO-2038 is attached.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Signature

Dated: **July 18, 2006**

Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
1616 South Voss Road, Suite 750
Houston, TX 77057-2631
Telephone: (713) 468-8880, ext. 304
Facsimile: (713) 468-8883

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

07-18-2006
(Date)

Signature of Person Mailing Correspondence

Ginger Yount

Typed or Printed Name of Person Mailing Correspondence

cc:

TM AP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Timothy T. Achee, Jr. et al.	§	Art Unit:	3672
Appl. No.:	10/709,755	§	Examiner:	Giovanna M. Collins
Filed:	May 26, 2004	§		
For:	Flow Control in Conduits from Multiple Zones of a Well	§	Atty. Dkt. No.:	SHL.0301US (68.0475)

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37

Sir:

The final rejection of claims 1-23 is hereby appealed.

I. REAL PARTY IN INTEREST

The real party in interest is the Schlumberger Technology Corporation.

II. RELATED APPEALS AND INTERFERENCES

None.

Date of Deposit: July 18, 2006
I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as **first class mail** with sufficient postage on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Ginger Yount

III. STATUS OF CLAIMS

Claims 1-23 have been finally rejected and are subject of this appeal.

IV. STATUS OF AMENDMENTS

No amendments have been submitted after final.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

Independent claim 1 recites an apparatus for use in a well having at least three zones (Fig. 1:102, 104, 106; Specification, ¶ [0009]), comprising:

at least three sand control assemblies (Fig. 1:114, 116, 118) for positioning proximal respective zones (Spec., ¶ [0010]);

a flow assembly defining at least three flow conduits (Fig. 1:108, 110, 112) to respectively communicate with the at least three zones (Spec., ¶ [0010])

wherein each of at least two of the flow conduits includes an annular path (Spec., ¶¶ [0012, 0013]); and

at least three flow control devices (Fig. 1:134, 136, 138) to respectively control flow of the at least three flow conduits (Spec., ¶¶ [0015-0021]).

Independent claim 9 recites a system for use in a well having at least three zones (Fig. 1:102, 104, 106), comprising:

a production tubing (Spec., ¶¶ [0020, 0026]); and

at least three sand control assemblies (Fig. 1:114, 116, 118) for positioning proximal respective zones (Spec., ¶ [0010]);

a flow assembly having at least three flow conduits (Fig. 1:108, 110, 112) to respectively communicate with the at least three zones, the flow assembly having a first tube (Fig. 2B:106), wherein a first one of the flow conduits includes an inner bore of the first tube (Spec., ¶ [0022]), a second one of the flow conduits includes a first annular path (Fig. 2C:214) around the first tube (Spec., ¶ [0023]), and a third one of the flow conduits includes a second annular path (Fig. 2B:220) around the first annular path (Spec., ¶ [0024]); and

at least three flow control devices (Fig. 1:134, 136, 138) to respectively control flow between the at least three flow conduits and the production tubing (Spec., ¶¶ [0015-0021]).

Independent claim 20 recites a method of controlling fluid flow in a well having at least three zones (Fig. 1:102, 104, 106), comprising:

providing a flow assembly having at least three conduits (Fig. 1:108, 110, 112) to communicate with the at least three zones, wherein a second one of the conduits (Fig. 1:110) comprises a first annular path (Fig. 2C:214) around a first one of the conduits (Fig. 1:108, Spec., ¶¶ [0022-0023]), and a third one of the conduits (Fig. 1:112) comprises a second annular path (Fig. 2B:230) around the first annular path (Spec., ¶ [0024]);

positioning sand control equipment (Fig. 1:114, 116, 118) proximal the at least three zones (Spec., ¶ [0010]); and

remotely controlling flow control devices (Fig. 1:134, 136, 138) to control fluid flow through the at least three flow conduits (Spec., ¶ [0018]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1-18, 20 and 21 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,227,298 (Patel '298).

B. Claim 19, 22, and 23 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,227,298 (Patel '298) in view of U.S. Patent No. 6,302,216 (Patel '216).

VII. ARGUMENT

A. Claims 1-18, 20 and 21 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,227,298 (Patel '298).

Each of independent claims 1, 9, and 20 was rejected as being obvious over Patel '298 alone. It is respectfully submitted that the Office Action has failed to establish a *prima facie* case of obviousness for at least the reason that no motivation or suggestion existed to modify Patel '298 to achieve the claimed subject matter. *See* M.P.E.P. § 2143 (8th ed., Rev. 3), at 2100-135.

It is well established law that the "PTO has the burden under section 103 to establish a *prima facie* case of obviousness." *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). The PTO "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. *Id.* The Examiner has clearly not satisfied the burden required for a *prima facie* case of obviousness.

As conceded by the Examiner, Patel '298 does not disclose all of the subject matter of claim 1. 3/9/2006 Office Action at 2. Specifically, Appellant respectfully submits that Patel '298 does not disclose or suggest that each of at least *two* of the three flow conduits includes an *annular path*. Although Patel '298 does state that further embodiments may include multiple valves for use with more than two zones (Patel '298, 2:24-27), Patel '298 does not disclose or suggest that the addition of flow conduits would include another *annular path*. In other words, Appellant respectfully submits that Patel '298 does not suggest a flow assembly defining at least three flow conduits to respectively communicate with at least three zones, where each of at least *two* of the flow conduits includes an *annular* path.

Using the benefit of impermissible hindsight reconstruction, the Examiner stated that "it would be advantageous to have at least sand control assemblies, flow conduits and flow control

devices when using the apparatus in a system [sic] at least three zones of interest and to have a second annular path for the third flow conduit to ensure the isolation of the zone," and that therefore, "it would be obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus disclosed [sic] by Patel ['298] to have at least three sand control assemblies, flow conduits and flow control devices and a second annular path." 3/9/2006 Office Action 2-3. This logic for supporting the obviousness rejection of the claims over Patel '298 does not rely on any objective evidence, but rather relies upon speculation on the part of the Examiner. What the Examiner failed to appreciate is the complexity of completion hardware associated with completing a well with multiple zones, particularly when sand control has to be performed. *See* Specification, ¶ [0002]. By using a flow control assembly according to some embodiments of the invention, convenient placement of flow control devices in conjunction with sand control equipment can be accomplished. *Id.* at ¶ [0030]. Except for a mere reference in Patel '298 that multiple valves can be used with more than two zones, the Examiner has failed to cite to any objective evidence that would have suggested a modification of Patel '298 to provide a second annular path in the context of the claimed subject matter. As consistently warned by the courts, "[i]t is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). That appears to be exactly what has been performed here, with the present invention used as a template for the purpose of modifying Patel '298, where no objective evidence has been cited to support the allegation by the Examiner that it would be obvious to modify Patel '298 to incorporate the second annular path recited in the claims.

In the Reply to Office Action that was submitted by Appellant on Nov. 2, 2005, Appellant specifically requested production of a reference that would have suggested a modification of Patel '298 to achieve the claimed invention. Despite this request, no such reference has been cited by the Examiner. Since the Examiner is unable to cite to specific objective evidence that would have provided the suggestion or motivation to modify Patel '298, it is respectfully submitted that a *prima facie* case of obviousness has not been established.

For the foregoing reasons, reversal of the final rejection of the above claims is respectfully requested.\

B. Claim 19, 22, and 23 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,227,298 (Patel '298) in view of U.S. Patent No. 6,302,216 (Patel '216).

In view of the allowability of base claims over Patel '298, it is respectfully submitted that the obviousness rejection of claims 19, 22, and 23 over Patel '298 and Patel '216 has been overcome.

VIII. CONCLUSION

In view of the foregoing, reversal of all final rejection and allowance of all pending claims is respectfully requested.

Respectfully submitted,

Date: Jul 18, 2006

Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
1616 South Voss Road, Suite 750
Houston, TX 77057-2631
713/468-8880 [Phone]
713/468-8883 [Fax]

APPENDIX OF APPEALED CLAIMS

The claims on appeal are:

1. An apparatus for use in a well having at least three zones, comprising:

at least three sand control assemblies for positioning proximal respective zones;

a flow assembly defining at least three flow conduits to respectively communicate with the at least three zones,

wherein each of at least two of the flow conduits includes an annular path; and

at least three flow control devices to respectively control flow of the at least three flow conduits.

2. The apparatus of claim 1, wherein the flow assembly includes a first tube having an inner bore, a first one of the flow conduits including the inner bore of the first tube.

3. The apparatus of claim 2, wherein the flow assembly further includes a second tube having a diameter larger than that of the first tube,

wherein a first annular path is defined between the first and second tubes, a second one of the flow conduits including the first annular path.

4. The apparatus of claim 3, wherein the flow assembly further includes a third tube having a diameter larger than that of the second tube,

wherein a second annular path is defined between the second and third tubes, a third one of the flow conduits including the second annular path.

5. The apparatus of claim 4, wherein a first one of the flow control devices includes a ball valve, the ball valve to control fluid communication between the first flow conduit and a flow path.

6. The apparatus of claim 5, wherein a second one of the flow control devices includes a first sleeve valve, the first sleeve valve to control fluid communication between the second flow conduit and the flow path.

7. The apparatus of claim 6, wherein a third one of the flow control devices includes a second sleeve valve, the second sleeve valve to control fluid communication between the third flow conduit and the flow path.

8. The apparatus of claim 1, wherein the sand control assembly each includes at least one sand screen.

9. A system for use in a well having at least three zones, comprising:

a production tubing; and

at least three sand control assemblies for positioning proximal respective zones;

a flow assembly having at least three flow conduits to respectively communicate with the at least three zones, the flow assembly having a first tube, wherein a first one of the flow conduits includes an inner bore of the first tube, a second one of the flow conduits includes a first annular path around the first tube, and a third one of the flow conduits includes a second annular path around the first annular path; and

at least three flow control devices to respectively control flow between the at least three flow conduits and the production tubing.

10. The system of claim 9, wherein the flow assembly includes a second tube, the first and second tubes defining the first annular path.

11. The system of claim 10, wherein the flow assembly further includes a third tube, the second and third tubes defining the second annular path.

12. The system of claim 11, wherein the first tube has a first diameter, the second tube has a second diameter greater than the first diameter, and the third tube has a third diameter greater than the second diameter.

13. The system of claim 12, wherein at least portions of the first, second, and third tubes have a common axis.

14. The system of claim 9, wherein the flow control device to control flow between the first flow conduit and the production tubing comprises a ball valve.

15. The system of claim 14, wherein the flow control device to control flow between the second flow conduit and the production tubing comprises a first sleeve valve.

16. The system of claim 15, wherein the flow control device to control flow between the third flow conduit and the production tubing comprises a second sleeve valve.

17. The system of claim 16, wherein the third flow conduit further comprises a well annular region, the second sleeve valve to control fluid communication between the well annular region and the production tubing.

18. The system of claim 9, wherein the flow control devices are remotely actuatable.

19. The system of claim 18, wherein the flow control devices are actuatable by at least one of electrical signals and fiber optic signals.

20. A method of controlling fluid flow in a well having at least three zones, comprising:

providing a flow assembly having at least three conduits to communicate with the at least three zones, wherein a second one of the conduits comprises a first annular path around a first one of the conduits, and a third one of the conduits comprises a second annular path around the first annular path;

positioning sand control equipment proximal the at least three zones; and

remotely controlling flow control devices to control fluid flow through the at least three flow conduits.

21. The method of claim 20, wherein providing the flow assembly comprises providing first, second, and third tubes, the first conduit comprising an inner bore of the first tube, the first annular path defined between the first tube and the second tube, and the second annular path defined between the second tube and the third tube.

22. The method of claim 20, wherein remotely controlling the flow control devices comprises remotely controlling with at least one of electrical signals and fiber optic signals.

23. The apparatus of claim 1, wherein the flow control devices are actuatable by at least one of electrical signals and fiber optic signals.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None